Amendments to the Claims:

This listing of claims will replace all prior versions, and listings of claims in the application. Applicant has submitted a new complete claim set showing marked up claims with insertions indicated by underlining and deletions indicated by strikeouts and/or double bracketing.

Listing of Claims:

1. (Currently Amended)   A computer-readable storage medium having computer-executable instructions, that when executed on a computing system, perform steps comprising:

providing an interface for communication with a demultiplexer object which takes multiplexed multimedia data as input and outputs demultiplexed elementary media streams, the interface including:

an Initialize method to configure the demultiplexer object;

a SetPresentationDescriptor method to dynamically set an active presentation descriptor ~~on~~ of the demultiplexer object to a next pending presentation when an active presentation exists only if all output associated with the active presentation has been serviced, wherein if the SetPresentationDescriptor method is called attempting to set the active presention descriptor to the next pending presentation when the active presentation exists and not all output associated with the active presentation has been serviced, the SetPresentationDescriptor method indicates that the active presentation descriptor cannot be set to the next pending presentation because not all output associated with the active presentation has been serviced;

a ProcessInput method to provide a new input muxed stream to the demultiplexer object;

a ProcessOutput method to retrieve at least one elementary stream from an active presentation determined based on the dynamically set active presentation descriptor; and

a Flush method to flush currently queued input and output samples.

2. (Previously Presented)   The computer-readable storage medium of claim 1 wherein the interface further comprises a GetPresentationDescriptor method to retrieve a clone of the currently active presentation descriptor on the demultiplexer object.

3. (Previously Presented)   The computer-readable storage medium of claim 2 wherein the GetPresentationDescriptor method includes a presentation descriptor.

4. (Previously Presented)   The computer-readable storage medium of claim 1 wherein the interface further comprises a GetPendingPresentationDescriptor method to retrieve the next pending presentation.

5. (Previously Presented)   The computer-readable storage medium of claim 4 wherein the GetPendingPresentationDescriptor method includes a pending presentation descriptor.

6. (Previously Presented)   The computer-readable storage medium of claim 1 wherein the Initialize method includes parameters, the parameters comprising:

a muxed stream descriptor;

a selected media type for the muxed stream descriptor;

an array of major types of elementary streams; and

a count of major types in the array of major types.

7. (Previously Presented)   The computer-readable storage medium of claim 1 wherein the SetPresentationDescriptor method includes a pointer to a presentation descriptor object.

8. (Previously Presented)   The computer-readable storage medium of claim 1 wherein the ProcessInput method includes a pointer to a sample object.

9. (Previously Presented)   The computer-readable storage medium of claim 8 wherein the ProcessInput method further includes a return value having a new presentation flag.

10. (Previously Presented)   The computer-readable storage medium of claim 9 having further computer executable instructions for performing the steps comprising:
    if the new presentation flag has a TRUE value:
        calling a GetPendingPresentationDescriptor method to retrieve the next pending presentation;
        selecting desired streams; and
        calling the SetPresentationDescriptor method to enable processing of samples from the demultiplexer's input queue.

11. (Previously Presented)   The computer-readable storage medium of claim 1 wherein the ProcessOutput method includes a stream identifier and a pointer to a pointer to a sample object.

12. (Previously Presented)   The computer-readable storage medium of claim 11 wherein the ProcessOutput method further includes an output return value.

13. (Previously Presented)   The computer-readable storage medium of claim 12 wherein the output return value includes one of an end of stream error code and a no more data error code.

14. (Previously Presented)   The computer-readable storage medium of claim 1 wherein the interface takes multiplexed data as an in-memory buffer of data.

15. (Previously Presented)   The computer-readable storage medium of claim 14 wherein the multiplexed data has a format comprising at least one of Digital Video, MPEG2, and ASF.

16. (Previously Presented)   A computer-readable storage medium of claim 1, the steps further comprising:

  storing an Initialize data structure for use in a demultiplexer, including:

    a first field containing a header;

    a second field containing a muxed stream descriptor;

    a third field containing a selected media type of the muxed stream descriptor;

    a fourth field containing an array of major types of elementary streams; and

    a fifth field containing a count of major types in the array of major types.

17. (Previously Presented)   A computer-readable storage medium of claim 1, the steps further comprising:

storing a SetPresentationDescriptor data structure for use in a demultiplexer, comprising:

a first field containing a header; and

a second field containing a presentation descriptor.

18. (Previously Presented)   A computer-readable storage medium of claim 1, the steps further comprising:

storing a GetPresentationDescriptor data structure for use in a demultiplexer, comprising:

a first field containing a header; and

a second field containing a presentation descriptor.

19. (Previously Presented)   A computer-readable storage medium of claim 1, the steps further comprising:

storing a GetPendingPresentationDescriptor data structure for use in a demultiplexer, comprising:

a first field containing a header; and

a second field containing a pending presentation descriptor.

20. (Previously Presented)   A computer-readable storage medium of claim 1, the steps further comprising:

storing a ProcessInput data structure for use in a demultiplexer, comprising:

a first field containing a header; and

a second field containing a pointer to a sample object.

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21. (Previously Presented)   A computer-readable storage medium of claim 1, the steps further comprising:

storing a ProcessOutput data structure for use in a demultiplexer, comprising:

a first field containing a header;

a second field containing a stream identifier; and

a third field containing a pointer to a point to a sample object.

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